

Docket Management Facility
(USCG-2000-7833)
U.S. Department of Transportation
400 Seventh Street, SW
Washington, DC 20590-0001

Dear Sir/Madam:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the Environmental Protection Agency (EPA) has reviewed U. S. Coast Guard's (USCG) draft programmatic Environmental Impact Statement (EIS) for the Vessel and Facility Response Plans for Oil: 2003 Removal Equipment Requirements and Alternative Technology Revisions (CEQ # 20050202).

The EIS examines the USCG's proposal to increase oil spill response capacities for tanker vessels and marine transportation-related facilities. The EIS states this is needed to ensure the ability to mitigate oil spills by optimizing the uniform availability of oil spill response capabilities. The proposed alternatives have the potential to influence the availability of equipment related to three response options: mechanical recovery, in-situ burning, and chemical dispersion. The capability to use all three options currently exists throughout the United States, but only mechanical recovery can be used without geographic restrictions.

EPA agrees that it is a matter of public policy to provide a response to oil spill incidents in order to mitigate the adverse environmental impacts of spilled oil. We also agree that there is not a single response option that can eliminate or prevent all environmental effects, and that each option may have environmental consequences of its own. While the document recognizes that the application of dispersants adds an additional contaminant to the water, it does not address the synergistic effects of dispersants with oil. EPA recommends that the final EIS include a discussion of potential impacts that dispersants with oil will have on the water column and organisms within the water column. We also recommend the final EIS reference the findings in the National Academy of Sciences' recent publication, *Understanding Oil Spill Dispersants: Efficacy and Effects (2005) Ocean Studies Board*.

In order to keep the use of dispersants in perspective, EPA recommends including a

discussion of the past and expected frequency of the use of dispersants. If possible, some discussion on the proportion of resources affected and their rate of recovery should also be included.

Finally, the role of the Federal On-Scene Coordinator in decisions regarding the use of dispersants within pre-authorization agreement areas should also be included in this discussion.

As a programmatic document, the EIS discussed the differences among the six different geographical areas of influence. The document stated that “Each area of influence is delineated as a defined geographical region that is reasonably unique in terms of environmental conditions.” EPA recommends that the environmental conditions, their variation and the definition of “reasonably unique” be provided for all regions. In addition, EPA recommends that the final document include a discussion of USCG’s tiered approach, which allows the preparation of specific NEPA documentation for each region, and the incorporation of site/geographical specific considerations for water and air temperatures, training of technical experts, resource managers, stakeholders, and seasonal considerations in the dispersant-use planning process.

The EIS modeled two spill volumes in the document: a medium spill of 2,500 bbl and a large spill of 40,000 bbl. Given that there have been past spills that have been much larger than 40,000-bbl, we recommend that the final document clarify why higher spill volumes were not modeled. In addition, with the implementation of the proposed action to increase the availability of dispersants for use in situations that are three plus miles from shore, it may be reasonably foreseeable that dispersants will also be more widely available for use on spills in nearshore and/or shallow waters. The final EIS should discuss the possibility of increased use of dispersants near shore and how near shore impacts could be mitigated.

The recent report, *Understanding Oil Spill Dispersants: Efficacy and Effects (2005)* Ocean Studies Board, stated that “oil trajectory and fate models used by technical support staff advising on-scene decisionmakers for dispersed oil behavior are not adequate in terms of: 1) their representation of natural physical process involved, 2) verification of the codes, and 3) validation of the output from these models in an experimental setting or during an actual spill. Thus, their ability to predict the concentrations of dispersed oil and dissolved petroleum hydrocarbons of concern in the water column with sufficient accuracy to aid in real-time spill decisionmaking has yet to be fully determined.” EPA recommends that the EIS reflect this statement and acknowledge the limitations of the model that was used. We also recommend that the nature of the stochastic model be described in greater detail and that the discussion include an estimate of the uncertainties due to other model parameters.

In the discussion of current protocols for effectiveness monitoring (i.e., Special Monitoring of Advanced Response Technologies [SMART]), the EIS acknowledges the existence of criteria and guidelines for monitoring both chemical dispersion and in-situ burning during spill response operations. However, the document does not acknowledge that it is rare that monitoring resources can be mobilized within the timeframe of emergency dispersant applications. Because the SMART protocols have not been updated since the first design, EPA recommends that USCG update SMART protocols and consider adding a detailed Standard Operating Procedure to document actual

oil concentrations and exposures to sensitive resources under dispersed oil slicks. This information would be very useful in future development and validation of chemically dispersed oil model predictions.

The preferred alternative allows a reduction in mechanical recovery capacity when in-situ burning capacity is provided (i.e., as in-situ burn credit). EPA is concerned that this proposed change would be less environmentally protective, since it would provide a lower degree of response in cases where mechanical containment and recovery are effective, but in-situ burning is not feasible.

The EIS states that in-situ burning is considered, at-best, equivalent in effectiveness to mechanical recovery, and that adding in-situ burn equipment to or substituting in-situ burn equipment for mechanical recovery equipment will not increase the amount of oil treated. The discussion also suggests that containment is the primary limiting factor for both; we disagree. Although containment is clearly a necessary condition for in-situ burning and would be a limiting factor in high seas, the assumption that containment is the only factor limiting the efficiency of in-situ burning and mechanical recovery is false. There are a number of other limiting factors: some oils that emulsify may not ignite; additional booms may be required to separate oil to be burned from the ship; burning may be prevented in cases where igniting the oil may cause ignition of remaining oil on board ship; the volume of oil that can be burned may be limited for large spills; burning may be prevented by air emission concerns. These and other unique limitations of in-situ burning would not influence mechanical recovery. Therefore, there should not be a reduction in mechanical recovery equipment because there are times when mechanical recovery could be used and in-situ burning not used. Reducing mechanical recovery equipment based on an in-situ credit even where in-situ burning would be appropriate would result in greater environmental damage. We recommend eliminating the in-situ burn credit.

We recommend that discussions regarding the areas with pre-authorization agreements should also include information relating to when dispersants and in-situ burning could be used. The role of the Federal On-Scene Coordinator in decisions regarding the use of dispersants within pre-authorization agreement areas should also be described.

Based on the above issues we have rated the draft programmatic EIS Environmental Concerns/Insufficient Information (EC- 2), (see enclosed "Summary of EPA Rating System"). EPA's Office of Solid Waste and Emergency Response, Office of Emergency Management will be submitting additional detailed comments under separate cover.

We appreciate the opportunity to review this draft programmatic EIS. We also look forward to reviewing the final programmatic EIS related to this project. The staff contact for the review is Marthea Rountree and she can be reached at 202-564-7141.

Sincerely,

Anne Norton Miller
Director
Office of Federal Activities

Enclosure:
Summary of EPA Rating System